#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493

Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.9/14.3,0.0/1.6

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000840 Address: 333 Burma Road **Date Inspected:** 13-Nov-2007

City: Oakland, CA 94607

**OSM Arrival Time: 2300 Project Name:** SAS Superstructure **OSM Departure Time:** 730 Prime Contractor: American Bridge/Fluor Enterprises, a JV

**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Xu Lefeng & Li Gang No **Inspected CWI report:** Yes **Rod Oven in Use:** Yes No N/A No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Oualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A **Approved Drawings:** Yes No N/A **Approved WPS:** Yes No Yes N/A **Delayed / Cancelled:** No

34-0006 **Bridge No: Component:** Caltrans Mock-Up

### **Summary of Items Observed:**

Skin Plate D

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M, 114M and U-Rib Trial Assembly, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

ZPMC Quality Control (QC) Inspector, Mr. Fu Yu Hong informed Caltrans QA Inspector that ZPMC would be welding on Mock-Up 114M, Interior Skin Plate D and C, in Building #2. Caltrans QA Inspector Mr. Ken Jobes observed the welding activities for skin plate C. Caltrans QA Inspector performed the following observations. **Item Description** WBS Dwg No. Status

Mock-Up 114M, Interior Skin Plate D: Caltrans QA Inspector observed flux cored arc welding (FCAW), complete joint penetration (CJP) weld, longitudinal stiffener plate p1032-1, joining skin plate A75, weld #4, fill pass weld in the flat position. The welder is identified as Mr. Chang Cuangcang, welder stamp 053870. The welder is using welding procedure specification WPS-B-T-2231-TC-U5-F, Revision 1. Caltrans QA observed ZPMC Quality Control inspector, Mr. Xu Lefeng and Bureau Veritas (BV) inspector, Mr. Li Gang, monitoring welding activities at the workstation. Caltrans QA Inspector measured current welding parameters at approximately 310 amps, 31.3 volts and 275 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. FCAW welding consumable is verified and identified as Supercored 71H, classification E71T-1, diameter 1.4 mm (.055 inches). The following digital pictures illustrate welding in progress at stiffener plate p1032-1 and completed fill pass weld.

NA

NA

Welding

# WELDING INSPECTION REPORT

(Continued Page 2 of 2)



# **Summary of Conversations:**

As identified within the contents of this report.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Hasler,Mike	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer